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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,290	03/26/2004	Paul J. Weber	PI-3 ABC	9266
7590	02/07/2006		EXAMINER	
John P. Wooldridge 252 Kaipii Pl. Kihei, HI 96753				BOGART, MICHAEL G
		ART UNIT		PAPER NUMBER
		3761		

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/810,290	WEBER ET AL.	
	Examiner	Art Unit	
	Michael G. Bogart	3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 March 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 26 March 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Rejections – 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

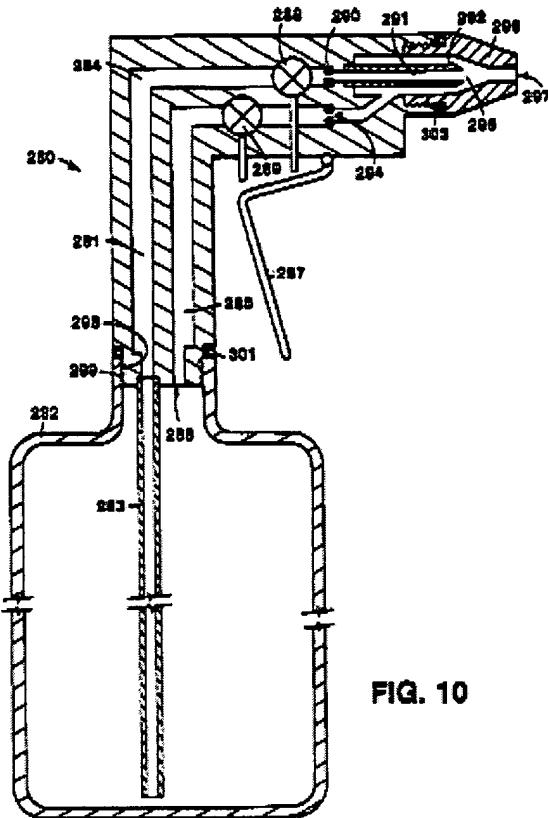
Claims 1-4, 7, 8, 12, 14, 17 and 18 are rejected under 35 U.S.C. § 102(b) as being anticipated by Rose *et al.* (US 6,203,406 B1; hereinafter “Rose”).

Regarding claim 1, Rose teaches an apparatus capable of resurfacing skin using biocompatible materials, comprising:

a particle generator (280) capable of forming particles (16) of a biocompatible material, wherein said biocompatible material is selected from the group consisting of frozen H₂O and dry ice;

a delivery system (297) capable of delivering said particles (16) from said particle generator (280) to a skin surface; and

means capable of propelling said particles through said delivery system to said skin surface, wherein said means for propelling said particles includes a carrier gas (CO₂ or N₂) for carrying said biocompatible particles (16)(col. 13, line 26-col. 14, line 27).



Regarding claim 2, Rose teaches a holding tank (282) for containing said biocompatible material, cooling means (heat exchanger) for cooling said biocompatible material to produce cooled material, and means for forming solid particles of a selected size from said cooled material (col. 8, lines 47-59)(col. 9, lines 35-40).

Regarding claim 3, Rose teaches a holding tank (282) capable of containing said biocompatible material in a liquid state, and means to inject microdroplets of said material into said carrier gas (col. 11, lines 38-47; col. 13, lines 26-col. 14, line 27).

Regarding claim 4, Rose teaches that said carrier gas (N_2 or CO_2 gas) is under a pressure greater than atmospheric pressure (col. 11, lines 38-47; col. 13, lines 26-col. 14, line 27).

Regarding claim 5, Rose teaches a vacuum chamber (54).

Regarding claims 7, 8 and 18, Rose teaches a means of controlling the rate of delivery of carrier gas and particle generation (col. 9, lines 23-col. 10, line 8).

Regarding claim 12, Rose teaches that the means for propelling particles does so at a supersonic velocity (col. 8, lines 32-45; col. 11, lines 25-47).

Regarding claim 14, Rose teaches particles that are between 0.5 and 10 μm .

Regarding claim 17, Rose teaches means for controlling the size of the particles (col. 14, lines 41-64).

Claims 1, 4, 7, 8 and 15 are rejected under 35 U.S.C. § 102(b) as being anticipated by Becker (US 6,174,225 B1).

Regarding claim 1, Becker teaches an apparatus (10) capable of resurfacing skin using biocompatible materials, comprising:

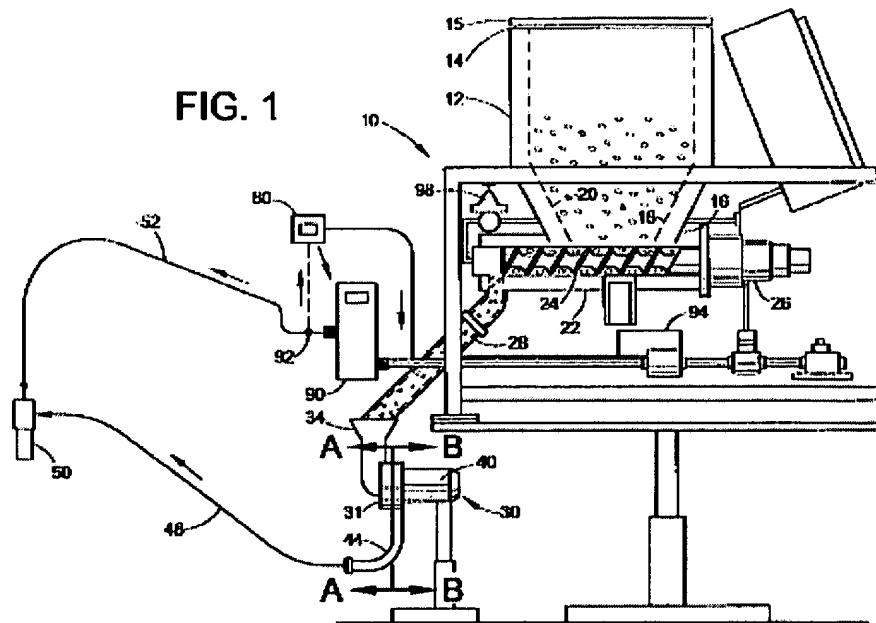
a particle generator (30) capable of forming particles of a biocompatible material, wherein said biocompatible material is selected from the group consisting of frozen H₂O and dry ice (Abstract);

a delivery system (48, 50, 52) capable of delivering said particles from said particle generator (30) to a skin surface; and

means capable of propelling said particles through said delivery system (48, 50, 52) to said skin surface, wherein said means for propelling said particles includes a carrier gas (CO₂ or N₂) for carrying said biocompatible particles (col. 5, lines 1-12)(see fig. 1, below).

Regarding claim 4, Becker teaches that said carrier gas (N₂ or CO₂ gas) is under a pressure greater than atmospheric pressure (col. 6, lines 27-40).

FIG. 1



Regarding claim 7, Becker teaches means (56) capable of controlling the delivery rate of the carrier gas.

Regarding claim 8, Becker teaches a means (40) capable of controlling the rate of particle production.

Regarding claim 15, Becker teaches a particle grinder (30).

Claim Rejections – 35 USC § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

Claims 9-11, 16, 19 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rose as applied to claims 1-4, 7, 8, 12, 14, 17 and 18 above, and further in view of Coleman (WO 99/37229 A1).

Rose does not teach the use of particles including anesthetic compound.

Coleman teaches a dermabrasion device that includes anesthetic or coagulant compounds (abstract).

At the time of the invention, one of ordinary skill in the art would have recognized the benefits of adding the drugs of Coleman to the applied particles of Rose in order to mitigate the pain and/or associated with applying particles at high velocity to a patient's skin.

Regarding claims 10 and 11, Coleman does not specify whether the additive compounds are solid or liquid. It would have been obvious to one of ordinary skill in the art to select a drug in a form that is most effective for absorption by the affected dermal area, generally a liquid form. Alternatively, it would have been obvious to select a drug in particle form to serve as a mild abrasive agent.

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Regarding claim 16, Rose teaches that gas of a specific temperature and pressure is to be fed into the device (col. 8, lines 47-59). This implies that some means of monitoring these parameters is used in the use of the device.

“[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.” *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

Regarding claim 19, Coleman teaches a means (54) for monitoring the flux of particles on the skin.

Regarding claim 20, Coleman provides a drug for application to an affected area of the skin. It would have been obvious for one of ordinary skill in the art when using the device of Rose and Coleman to select drugs targeted towards cancerous tissue.

Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rose as applied to claims 1-4, 7, 8, 12, 14, 17 and 18 above, and further in view of Weber *et al.* (US 6,226,996 B1; hereinafter “Weber”).

Rose does not disclose any means for monitoring skin temperature.

Weber teaches a device for applying cryogenic material to skin including skin temperature monitoring means (col. 3, lines 24-33).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to add the skin monitoring means of Weber to the device of Rose in order to prevent overheating or overcooling of the skin which can arise during durmabrasion.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Bogart whose telephone number is (571) 272-4933.

In the event the examiner is not available, the Examiner's supervisor, Tatyana Zalukaeva may be reached at phone number (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300 for formal communications. For informal communications, the direct fax to the Examiner is (571) 273-4933.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-3700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Michael Bogart
2 February 2006

TATYANA ZALUKAEVA
SUPERVISORY PRIMARY EXAMINER

